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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/034,792	12/27/2001	Philip J. Edwards	17623	1356

7590 03/03/2004

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EXAMINER

RAHLL, JERRY T

ART UNIT	PAPER NUMBER
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2874

DATE MAILED: 03/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/034,792	Applicant(s) EDWARDS ET AL.	
	Examiner Jerry T Rahl	Art Unit 2874	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 13, 14, and 16 is/are rejected.
- 7) ☒ Claim(s) 11, 12 and 15 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 July 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>09-2003</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Drawings

1. The drawings submitted have been reviewed and determined to facilitate understanding of the invention. The drawings are accepted as submitted.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-10, 13-14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,708,743 to DeAndrea et al. in view of U.S. Patent No. 5,367,530 to Noishiki et al.

5. DeAndrea et al. describes an optoelectric module having a connector interface to interconnect a fiber assembly having a ferrule with a fiber, an optical block with a unitary structure (60) of an optically-clear moldable material (see Col 11 Lns 1-23), having an optical

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path for transmitting optical signals between the fiber and OED, a ferrule receiving bore (61, 40) for receiving the ferrule and aligning the fiber (see Col 10 Lns 44-57) to the optical path and an OED receiving cavity (below lens 330) for receiving and aligning an OED (see Col 12 Lns 42-53) to the optical path in one or more axes, and a printed circuit board (15) comprising a plurality of contacts (20) adapted for electrical connection with a host circuit board of a host system, with a portion of the contacts being electrically coupled to the OED (see Figures 6, 7, 11-14 and Columns 4-6 and 9-12).

6. DeAndrea et al. does not specifically describe a lead frame mounted in the OED receiving cavity.

7. Noishiki et al. describes an OED (9, 14) having a lead frame (7,8) positioned in a manner that aligns the OED to an axis (see Figures 3-5 and Columns 5-6)

8. DeAndrea et al. and Noishiki et al. are analogous art because they are from the same field of endeavor of optical signal processing and directing. At the time of invention, it would have been obvious to one of ordinary skill in the art to use the OED and lead frame described by Noishiki et al. in the module described by DeAndrea et al. The motivation for doing so would be to mount the OED, as suggested by DeAndrea et al. at Column 5 Lns 12-46, to decrease parasitic capacitance and inductance. Therefore, it would have been obvious to combine Noishiki et al. with DeAndrea et al. to obtain the invention as specified in the claims of the current application.

9. Further, DeAndrea et al. describes the optical path having a first lens (340) for optically coupling with eth fiber, a second lens (330) for coupling with the OED and a reflective surface (310) to alter the direction of the optical path.

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10. Further, DeAndrea et al. describes the optical block made of an injection-moldable material (see Col 11 Lns 15-18).

11. Further, DeAndrea et al. describes the contacts arranged adjacent to an edge of the printed circuit board (see Figure 7).

12. Further, DeAndrea et al. describes the portion of contacts electrically coupled to the OED by traces on a flat, flexible circuit board (see Col 4 Ln 55 – Col 5 Ln 11).

13. Further, DeAndrea et al. describes the printed circuit board on staked to the connector interface (see Figure 7).

14. Further, DeAndrea et al. describes a conductive shield (50) mounted to the connector interface, at least partially enclosing the printed circuit board.

15. Further, Noishiki et al. describes testing an optical assembly after the OED is fixed in place.

16. While DeAndrea et al. and Noishiki et al. do not specifically describe the OED receiving cavity standardized to a particular lead frame configuration, it would have been obvious to one of ordinary skill in the art at the time of invention to use such a configuration, since such a modification would have involved a mere change of form or rearrangement of parts. A change in form or shape is generally recognized as being within the level of ordinary skill in the art.

Span-Deck Inc v. Fab-Con, Inc. (CA 8, 1982) 215 USPQ 835.

Allowable Subject Matter

17. Claims 11, 12 and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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18. Claim 11 describes the conductive shield having a resilient standoff. Claim 12 describes the PCB pin staked to the connector interface at a proximal end of the PCB, where the proximal end of the PCB is separated from the connector interface by a PCB spacer. Claim 15 describes testing while actively aligning the OED.

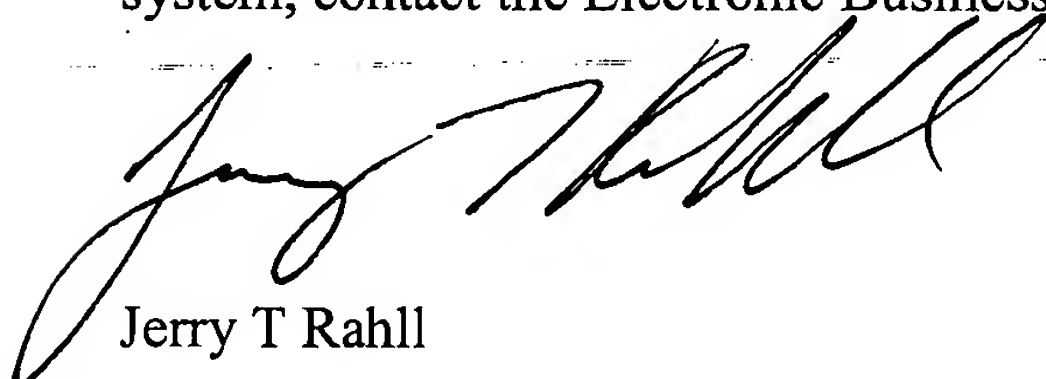
Conclusion

19. Prior art documents submitted by applicant in the Information Disclosure Statement filed on 22 September 2003 have all been considered and made of record (note the attached copy of form PTO-1449).


20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jerry T Rahll whose telephone number is (571) 272-2356. The examiner can normally be reached on M-F (8:00-5:30), with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jerry T Rahll



AKM ENAYET ULLAH
PRIMARY EXAMINER